EUROPEAN COMMISSION
Information Society and Media Directorate General

Lisbon Strategy and Policies for the Information Society
Lisbon Strategy and i2010

Use of Computers and the Internet in Schools in Europe 2006

Country Brief: France

6 / 2006

Key findings

Almost all French schools now use computers for teaching and 90% have internet access. 75% use the internet via a broadband connection. With this figure France ranks at number 14 of the 27 countries participating in the survey.

Schools have moved over to broadband. 72% (EU25: 45%) of the schools in France are connected to the internet via a DSL connection in 2006. The figure for 2001 was just 5% (EU15: 5%).

When trying to compare the figures from a 2001 survey with those from the 2006 LearnInd survey it becomes apparent that the quality of ICT use in French schools has not increased when looking at the availability of their own website and the use of a LAN.

Only 66% of French classroom teachers have used computers in class in the 12 months prior to the survey, with some variation across school types but hardly any variation between urban and rural areas. With this figure France belongs to the bottom half of European countries.

Computers and the internet are not used very frequently and intensively in French schools. A large majority (64%) of teachers using computers use them in less than 10% of all lessons. Only 3% state that they use computers in more than half of their lessons, while 12% use ICT in more than 25% of their lessons.

There is no simple result on the use of ICT in class according to age. It appears as if many primary school teachers in France are rather young and make more intensive use of ICT but mostly only in up to 10% of their lessons. Interestingly, the more frequent and intensive ICT users can be found among the older teachers.

The higher the school level, the more use of computers – especially in terms of frequency and intensity – is made by teachers and pupils. Only 8% of the teachers using computers in class in primary school and 28% of the teachers in lower secondary but 40% in upper secondary and 44% in vocational schools use these in more than 25% of their lessons.

A substantial 34% of teachers in France still do not use computers in class. When asked for the most important barrier, four issues gain the highest ratings among this group of teachers: a very large number, 63% state a lack of computers in their schools as an important barrier; 33% express the opinion that teachers lack the necessary skills to utilize computers in their teaching; 26% lack adequate material; and 22% are not convinced of any benefits of using computers in class.

In total, "lack of equipment in school" is expressed by a substantial 21% of all French teachers.

Basically all schools are equipped with at least some computers in France, but with 63% of the teachers not using computers in class stating that there is a lack of computers there seems some scope for further ICT-infrastructure improvements at French schools

A large number of French teachers are not satisfied with the technical access means at their schools: only 56% state that their school is well equipped with computers and 66% express the opinion that their internet connection is fast enough. These figures are significantly lower than those in other countries and France only ranks 26th on satisfaction with ICT equipment in schools.

In sum: computers and the internet have arrived in French schools but their use is only slowly improving.

38% of European teachers dispose of sufficient access to the internet at school, the necessary competence in using ICT in class and are motivated to its use. But only 19% of the teachers belong to this group in France. This places the country almost at the very bottom of European countries.

It appears that – in addition to ICT improvements - further (policy) activities are required in the area of motivation for, and teacher training in, ICT use in French schools.

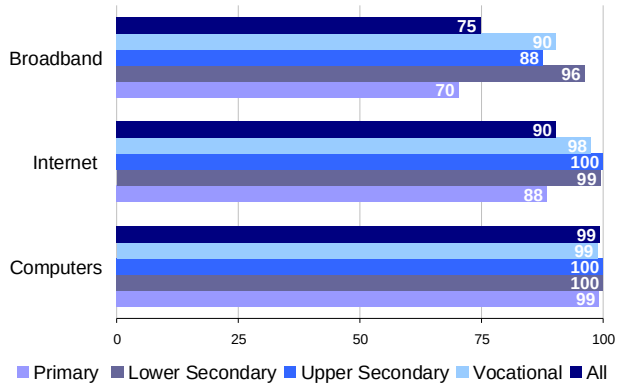
ICT Equipment and Internet in Schools

Almost all French schools now use computers for teaching and 90% have internet access. 75% use the internet via a broadband connection. With this figure France ranks at number 14 of the 27 countries participating in the survey. There is some variation between school types: while 70% of primary schools have a broadband internet connection, the penetration is highest among lower secondary schools, with 96%. There is also some variation with regard to broadband access between urban and rural areas with schools in densely populated areas having more frequently broadband access compared to schools in thinly populated areas.

Only 29% of French schools have a website, 68% offer e-mail to teachers, and 19% do so to pupils. 77% of French schools using computers for teaching use them in classrooms. Computers in the school library are more or less restricted to higher level schools 87% - 94% whereas this facility hardly exists in primary schools (24%).

Those schools with a broadband connection to the internet are much more likely to have a more sophisticated ICT infrastructure including a school website, the use of a LAN or the availability of an intranet.

Percentage of Schools Using Computers, Internet Connection, and Broadband Internet Access According to School Type in France 2006



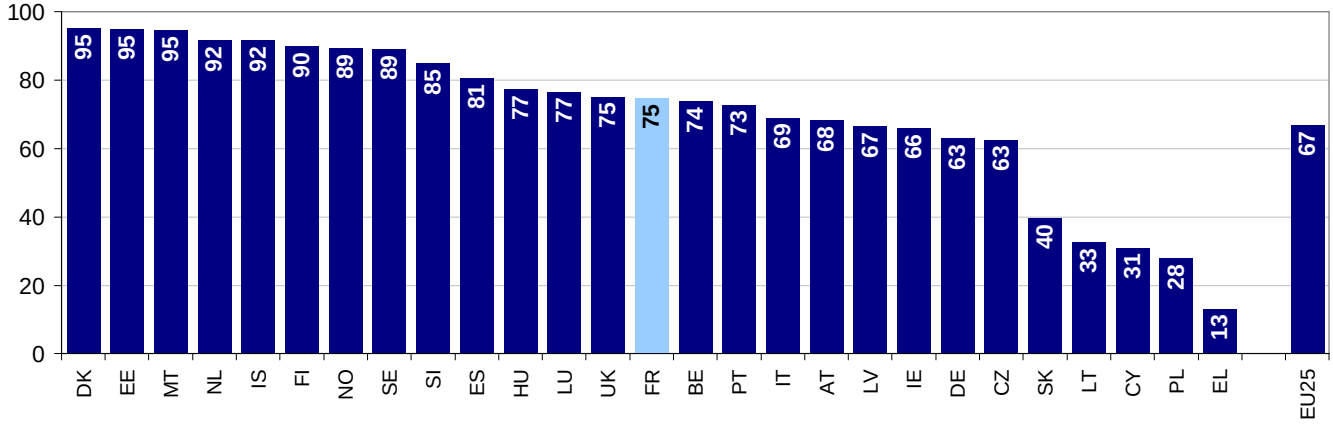
Source: *LearnInd HTS 2006;* ***Base:*** *All schools;* ***Question:*** *Computers: Q6; Internet, Broadband: Q9. See questionnaire for exact wording.*

The use of Computers and the Internet in Schools

Computers are used for various purposes and as part of teaching different subjects in schools but also and very widely as a separate subject.

Computer sciences are taught as a separate subject in only 32% of French schools no matter whether in primary, lower and upper secondary schools or vocational schools, according to the statements made by French head teachers. This is significantly below the European average of 55%. Although in 62% of the schools computers and the internet are integrated into the teaching of most subjects (mostly in upper level schools) and in 69% ICT is used for teaching foreign languages, the use of ICT in French schools is below the European average.

Percentage of Schools with Broadband Internet Access in Europe 2006



Source: *LearnInd HTS 2006;* ***Base:*** *All schools;* ***Question:*** *Q9. See questionnaire for exact wording.*

ICT equipment in French schools 2006

			Educational Level (FR)				Type of locality (FR)			Internet Access (FR)	
	Total FR	Total EU25	Primary	Lower secondary	Upper secondary	Vocational	Densely populated	Inter-mediate	Thinly populated	Narrow-band	Broadband
Computers per 100 pupils [a]	12.5	11.3	8.1	11.4	19.7	25.1	14.0	9.7	12.3	15.8	12.4
... of which internet connected	8.9	9.9	4.8	10.0	14.0	18.2	10.0	7.6	8.2	8.7	9.5
Percentage of schools having...											
Computers for teaching [b]	99.3	98.7	99.2	100.0	100.0	98.8	98.9	98.0	100.0	100.0	100.0
Internet access [c]	90.3	96.2	88.4	99.4	100.0	97.5	84.9	91.4	92.8	100.0	100.0
Broadband internet access [d]	74.8	66.9	70.3	96.2	87.6	90.2	81.0	82.4	68.5	0.0	100.0
A website [e]	29.0	63.0	20.6	64.8	86.5	82.6	37.8	25.5	25.6	20.7	34.5
An e-mail address for the majority of teachers [f]	67.8	65.2	65.4	76.6	67.4	77.4	54.5	74.0	72.7	74.9	75.1
An e-mail address for the majority of pupils [g]	19.0	23.5	15.4	29.6	26.0	41.3	18.7	21.7	18.0	18.5	21.5
A LAN [h]	21.7	55.2	16.9	42.5	64.2	56.7	28.6	19.4	18.9	14.8	26.0
An intranet [i]	24.9	40.8	16.7	59.7	60.5	70.2	37.6	22.8	18.7	13.3	30.5
An external support or maintenance contract [j]	30.1	47.1	27.7	43.4	36.7	53.1	41.2	29.6	24.2	12.7	37.6
Percentage of schools using computers for education in…											
Computer labs [k]	66.2	80.5	59.5	95.6	100.0	96.3	80.4	69.5	57.3	34.1	74.4
Classrooms [l]	76.7	61.4	76.9	74.8	69.3	72.9	74.3	76.5	78.0	91.6	73.5
School library [m]	36.5	33.4	23.9	86.9	93.9	89.6	48.8	34.4	30.6	16.1	43.6
Other locations accessible for pupils [n]	11.7	27.0	7.4	27.9	41.9	45.5	14.3	11.5	10.2	9.8	12.5

Source: *LearnInd HTS 2006;* ***Base:*** *a: all pupils; b-j: all schools, k-n: schools using computers for educational purposes for pupils (cf. index b);* ***Question:*** *a: Q4, Q6, Q7; b: Q6; c: Q9; d: Q9; e-j: Q12; k-n: Q8. See questionnaire for exact wording.*

Use of computers in class in France 2006

Assessments of the head teacher		Total FR	Total EU25	Educational Level (FR)				Type of locality (FR)			Internet Access (FR)	
				Primary	Lower secondary	Upper secondary	Vocational	Densely populated	Inter-mediate	Thinly populated	Narrow-band	Broadband
Computer sciences taught as separate subject	Agree	32.0	54.7	33.0	32.1	28.0	30.9	32.1	35.6	30.5	35.9	32.8
	Disagree	67.2	43.7	66.1	67.4	72.0	66.6	65.1	64.4	69.3	64.1	66.5
	Don't know	0.9	1.6	0.9	0.5	0.0	2.5	2.8	0.0	0.1	0.0	0.7
Computers and the internet are												
integrated into teaching of most subjects	Agree	61.8	75.3	61.2	61.9	77.2	80.1	65.6	48.6	64.7	46.0	64.5
	Disagree	37.8	24.1	38.5	38.1	22.8	19.9	33.3	51.4	35.3	54.0	35.0
	Don't know	0.3	0.6	0.4	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.4
used for teaching traditional subjects or basic skills	Agree	68.7	75.8	71.8	63.1	45.8	54.8	63.8	66.3	72.3	61.6	69.5
	Disagree	29.9	22.8	26.9	35.8	54.2	41.3	33.1	33.7	26.8	38.4	29.2
	Don't know	1.4	1.4	1.3	1.1	0.0	3.9	3.1	0.0	0.9	0.0	1.4
used for teaching foreign languages	Agree	28.5	56.6	23.0	49.2	69.4	66.6	35.3	17.0	29.1	20.8	31.2
	Disagree	69.8	40.1	75.0	50.8	29.3	32.2	62.2	81.3	69.6	79.2	67.4
	Don't know	1.7	3.3	2.0	0.0	1.3	1.2	2.6	1.7	1.3	0.0	1.4
used for teaching students with special needs/ handicaps	Agree	66.3	71.7	66.4	69.8	60.5	67.9	64.5	60.6	69.4	65.4	66.9
	Disagree	31.8	23.7	31.4	29.1	37.7	29.5	33.8	35.9	29.1	34.6	31.0
	Don't know	2.0	4.6	2.1	1.2	1.7	2.5	1.7	3.4	1.5	0.0	2.2

Source: *LearnInd HTS 2006;* ***Base:*** *All schools using computers for educational purposes for pupils;* ***Question:*** *Q13: "To what extent do you agree or disagree with the following statements regarding the educational use of computers and/or the internet in your school?"*

Only 66% of French classroom teachers had used computers in class in the 12 months prior to the survey, with some variation across school types but hardly any variation between urban and rural areas. With this figure France belongs to the bottom half of European countries.

For most teachers, this includes not only using a computer for presentation purposes but also the use of computers by pupils in class. But again, the figures are all below the European average.

Computers and the internet are not used very frequently and intensively in French schools. A large majority (64%) of the teachers using computers use them in less than 10% of all lessons. Only 3% state that they use computers in more than half of their lessons, while 12% use ICT in more than 25% of their lessons.

Teachers in vocational and upper secondary schools use computers in class much more frequently than their colleagues in general education with around 40% using computers in more than a quarter of their lessons.

French teachers using computers do not restrict themselves to a particular source of information but use a multitude of different material from a variety of sources for teaching purposes.

The learning material that is used most by French teachers includes offline learning materials such as CD-ROMs. This applies to almost 82% of teachers for both types of material used. About 74% of teachers each use prefabricated pedagogical material from existing online sources. Only 40% use material that is made available on the schools' network and databases. This is significantly below the European average of 63%. It looks as if the content and material offered by schools themselves could do with some improvements.

There is no simple result on the use of ICT in class according to age. It appears as if many primary teachers in France are rather young and make more intensive use of ICT – but mostly only in up to 10% of their lessons. Interestingly, the more frequent and intensive ICT users can be found among the older teachers.

The higher the school level, the more use of computers is made by teachers and pupils. Only 8% of the teachers using computers in class in primary school and 28% of the teachers in lower secondary (but 40% in upper secondary and 44% in vocational schools) use these in more than 25% of their lessons.

A substantial 34% of teachers in France still do not use computers in class. When asked for the most important barrier, four issues gain the highest ratings among this group of teachers: a very large number, 63% state a lack of computers in their schools as an important barrier; 33% express the opinion that teachers lack the necessary skills to utilize computers in their teaching; 26% lack adequate material; and 22% are not convinced of any benefits of using computers in class. The latter argument is mostly stated by teachers in higher level schools. Finally, 30% argue that their subject is not suitable for being taught via computers.

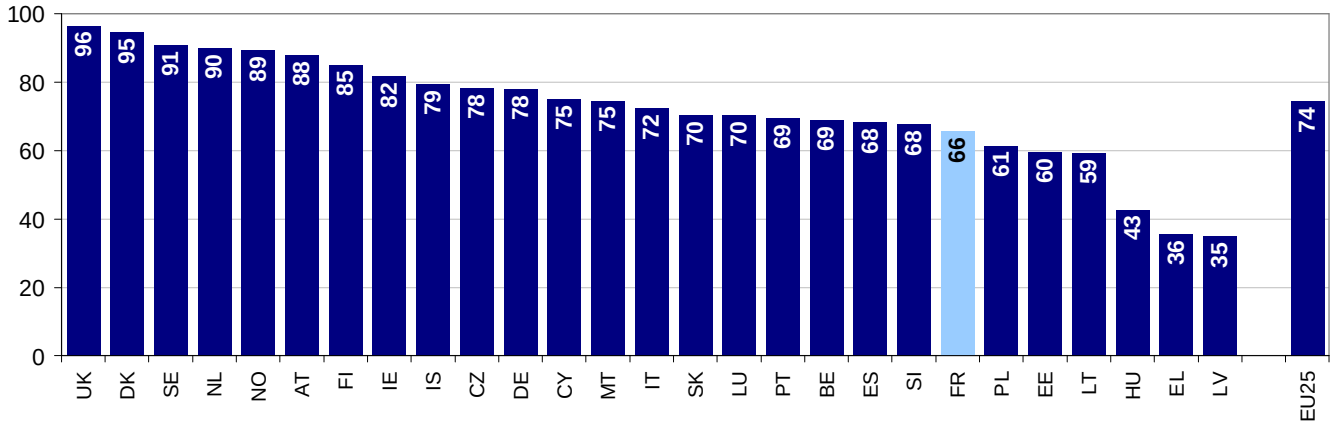
In total, “lack of equipment in school” is expressed by a substantial 21% of all French teachers (34% non-users multiplied with 63% of teachers agreeing to this item).

The contrasts to the European average are striking. French teachers not using computers in class show figures on “lack of skills”, “no or unclear benefits in using ICT” and “lack of interest” which are significantly higher compared to the European average.

It appears that further (policy) activities are required in the area of motivation for, and teacher training in, ICT use in French schools.

Basically all schools are equipped with at least some computers in France, but with 63% of the teachers not using computers in class stating that there is a lack of computers there seems some scope for further ICT-infrastructure improvements at French schools such as an increase of the number of computers in total and per pupil. With 13 computers per 100 pupils France ranks around the European average.

Percentage of teachers who have used computers in class in the last 12 months (2006)



Source: *LearnInd CTS 2006;* ***Base:*** *All teachers;* ***Question:*** *Q7. See questionnaire for exact wording*

Teachers' use of computers in class in France 2006

Percentage of teachers who ...	Total FR	Total EU25	Educational Level (FR)				Type of locality (FR)			Years of teaching experience (FR)			
			Primary	Lower secon-dary	Upper secon-dary	Voca-tional	Densely popu-lated	Inter-mediate	Thinly popu-lated	<5 y	5-9 y	10-19 y	20+ y
...have used computers in class[1]	65.5	74.3	65.7	56.1	72.1	78.9	61.6	69.2	66.8	70.9	67.0	64.8	63.1
...use a computer in class to present or demonstrate	50.9	63.4	50.0	45.6	63.6	71.5	47.9	50.9	52.8	53.9	47.3	49.1	52.3
...have pupils use a computer in class	55.1	66.3	54.6	49.5	65.5	70.7	55.1	62.0	52.6	56.8	55.9	54.2	54.5

Source: LearnInd CTS 2006; **Base:** All teachers; **Question:** Q7 "How have you used computers and/or the internet for work in the last 12 months?"

Frequency of computers use in class France 2006

Percentage of all teachers *using computers in class* who ...	Total FR	Total EU25	Educational Level (FR)				Type of locality (FR)			Years of teaching experience (FR)			
			Primary	Lower secon-dary	Upper secon-dary	Voca-tional	Densely popu-lated	Inter-mediate	Thinly popu-lated	<5 y	5-9 y	10-19 y	20+ y
...use computers in 5% and less of all lessons	33.4	18.5	36.8	18.7	19.7	16.1	28.7	40.1	34.0	41.0	38.0	34.7	27.2
in 6 to 10% of lessons	30.7	22.5	32.8	23.3	19.6	16.9	28.7	29.4	32.4	33.1	27.8	29.8	31.4
in 11 to 24% of lessons	23.5	22.2	23.4	29.6	21.2	23.2	26.9	16.8	23.7	16.0	26.5	23.4	25.5
in 25 to 50% of lessons	9.1	20.2	5.8	20.0	23.0	26.1	10.2	10.9	7.8	8.4	6.2	8.3	11.2
more than 50% of lessons	3.3	16.5	1.2	8.4	16.6	17.8	5.5	2.8	2.1	1.5	1.5	3.7	4.7

Source: LearnInd CTS 2006; **Base:** Teachers using computers in class, "don't know" answers excluded; **Question:** Q9 "For what percentage of time have you used computers and/or the internet in class when teaching your main subject(s) in the past 12 months?"

Source of educational material used in class in France 2006

Percentage of all teachers *using computers in class*[2] who ...	**Total FR**	**Total EU25**	**Educational Level**				**Type of locality**		
			Primary	**Lower secondary**	**Upper secondary**	**Vocational**	**Densely populated**	**Inter-mediate**	**Thinly populated**
...use material they have searched the internet for	75.0	82.7	73.6	85.0	83.4	83.3	80.3	70.0	73.5
...use existing online material from established educational sources	73.5	74.2	72.7	78.5	71.7	69.3	74.4	75.9	72.1
...use material that is available on the school's computer network or database	39.9	63.1	38.4	47.9	46.1	48.4	45.4	37.8	37.4
...use electronic offline material (such as CD ROMS)	82.1	83.0	85.2	65.1	70.8	72.7	79.9	75.7	85.6
...use other learning material when using computers in class	8.3	8.8	8.0	7.9	9.7	9.3	4.2	8.6	10.6

Source: LearnInd CTS 2006; **Base:** Teachers using computers in class; **Question:** Q10 "Which of the following types of materials have you used when teaching your main subject(s) with the aid of a computer and/or the internet?"

Barriers to computer use in class in France 2006

Percentage of all teachers ***not*** *using computers in class*	Total FR	Total EU25	Educational Level				Type of locality		
			Primary	Lower secondary	Upper secondary	Vocational	Densely populated	Inter-mediate	Thinly populated
Lack of computers	63.0	48.8	67.9	50.2	44.7	*48.8**	58.3	*67.8**	65.0
Lack of adequate content/material	26.0	20.3	25.6	26.7	30.7	*20.3**	29.2	*16.8**	26.5
Lack of content in national language	14.3	8.6	15.4	12.5	8.4	*10.4**	15.0	*11.5**	14.6
Lack of adequate skills of teachers	32.7	22.5	30.9	38.5	36.5	*37.7**	39.7	*38.0**	25.6
No or unclear benefits	21.7	16.2	18.4	32.9	37.3	*30.4**	26.7	*23.6**	17.2
Lack of interest of teachers	10.3	8.9	10.4	8.0	9.8	*10.5**	9.1	*11.5**	10.8
Subject does not lend itself to being taught via computers	29.5	24.4	28.9	31.9	36.6	*34.4**	33.3	*25.3**	28.0
Other	20.1	21.3	21.1	11.7	16.7	*24.4**	18.5	*26.2**	19.3

Source: *LearnInd CTS 2006;* ***Base:*** *all teachers not using computers in class;* ***Question:*** *Q12: "Why do you not use computers and/or the internet when teaching in class?"* ***Notes:*** *"xx.x*": based on at least 10 and less than 50 cases.*

Comparison of the situation in 2001 and 2006[3]

In France the percentage of schools using computers for educational purposes has risen over the past 5 years from an already high 96% in 2001 to 99% in 2006.

While in 2001 one hundred pupils had to share 10 computers the figure rose to 13 by 2006, an improvement of 30%, although figures are still only around the European average of 12.

Schools have moved over to broadband. 72% (EU25: 45%) of French schools are connected to the internet via a DSL connection in 2006. The figure for 2001 was just 5% (EU15: 5%). The figures have strongly increased over the past 5 years.

When trying to compare the figures from a 2001 survey with those from the 2006 LearnInd survey it becomes apparent that French schools have not increased the availability of their own website and the use of a LAN.

Attitudes on the Usefulness of ICT use in Teaching

Computers and the internet have arrived in French schools but their use is only slowly improving. The share of teachers in France - but also in the European Union in general – who believe that computers and the internet should not at all be used in schools, is very low and below 1%.

Although more than 70% of the French teachers are in favour of ICT use they a re less positive towards the different purposes for ICT use in teaching than their counterparts in many other European countries. They achieve figures which are mostly below the European average on attitudes that ICT should be used for letting pupils do exercises and practise (73%), letting pupils retrieve information in a self-directed manner (71%) and for collaborative and productive work by pupils (85%). There are only small differences across school types.

However, a large majority of French teachers (77%) believes that teaching about office tools should be an integral part of the teaching process. With this figure, the country ranks significantly above the EU25 average figure.

Attitudes on ICT use in Teaching in France 2006

Percentage of teachers saying computers/internet should be used for …	Total FR	Total EU25	Educational Level				Type of locality		
			Primary	Lower secondary	Upper secondary	Vocational	Densely populated	Inter-mediate	Thinly populated
Letting pupils do exercises and practise	72.9	79.9	72.0	77.6	73.6	74.5	72.9	65.9	75.3
Letting pupils retrieve information in a self-directed manner	70.6	85.0	68.5	81.0	80.1	76.7	72.3	53.2	75.5
Teaching about office tools	77.1	61.3	76.8	78.3	77.6	78.2	75.0	78.8	77.9
Collaborative and productive work by pupils	85.0	80.5	84.6	86.4	89.7	89.1	88.1	86.1	82.6
Computer/internet should not be used for any of these in teaching	0.7	0.6	0.8	0.3	0.4	0.7	1.1	0.0	0.6

Source: *LearnInd CTS 2006;* ***Base:*** *all teachers;* ***Question:*** *Q13: "What do you think for what computers and the internet should be used for in teaching?"*

Access, Competence and Motivation for Using ICT and the Internet in Schools

Access

A large number of French teachers are not satisfied with the technical access means at their schools: only 56% state that their school is well equipped with computers and 66% express the opinion that their internet connection is fast enough. These figures are significantly lower than those in other countries and France only ranks 26th on satisfaction with ICT equipment in schools.

A large share of French teachers – 76% – wish there were better support and maintenance actions taken.

Competence in using ICT

French teachers feel most competent in using e-mail and using a text processor programme but are less confident with downloading and installing software and with using presentation software packages. However, again, the figures are below the European average figures.

Primary school teachers (48%) seem to be less ICT competent than those in upper secondary (46%) and vocational schools (39%).

Motivation for ICT use in Schools

77% of French teachers see significant learning benefits for pupils using computers in class and state that pupils are more motivated and attentive when computers and the internet are used in class. Again, the figure is only below the European average.

Teachers' access, competence and motivation for using ICT in class 2006

Percentage of teachers agreeing or strongly agreeing:	Total FR	Total EU25	Educational Level: Primary	Lower secondary	Upper secondary	Vocational	Subject of teaching: General primary	Literature and languages	Humanities and social sciences	Science, maths, computer sciences	Physical, artistical, crafts education	Vocational education
Access												
Our school is well equipped with computers [a]	55.7	74.2	50.0	75.6	78.5	83.2	48.8	68.3	57.7	67.9	*80.4**	82.0
The internet connection we have is sufficiently fast [b]	66.1	77.2	62.0	80.7	85.6	86.5	61.3	75.1	74.1	76.9	*81.4**	86.6
Better technical maintenance and support is required in our school [c]	75.9	64.8	77.9	71.2	64.6	64.7	79.3	65.8	76.7	65.8	*69.2**	67.3
Existing teaching materials on the Internet are of poor quality [d]	30.2	29.9	27.8	38.0	37.5	44.4	26.8	39.3	40.4	39.0	*43.0**	42.5
It is hard to find adequate learning materials for teaching [e]	43.2	38.7	42.9	40.4	48.0	47.2	42.6	46.8	50.5	44.8	*32.1**	44.1
Motivation												
Pupils are more motivated and attentive when computers and the internet are used in class [f]	76.8	86.3	76.7	82.6	75.4	77.7	76.1	75.4	79.2	75.5	*86.3**	81.4
Using computers in class does not have significant learning benefits for pupils [g]	32.2	20.7	32.4	27.1	36.7	31.7	32.8	34.4	32.3	30.2	*17.9**	24.3
Competence												
Teachers in our school do not have sufficient computer skills [h]	47.6	42.0	48.2	49.1	46.0	38.7	49.3	42.5	50.1	39.2	*35.7**	51.2
Competence / computer skills (Percentage of teachers who feel very confident at...)												
Using text processors [i]	59.2	65.0	58.6	62.1	56.9	56.9	58.5	54.1	*67.2**	63.6	*58.7**	64.6
Creating electronic presentations [j]	18.9	34.0	15.5	30.5	32.8	34.6	15.1	16.2	*34.1**	25.8	*46.7**	48.7
Using e-mail [k]	57.0	65.9	55.3	63.7	63.3	63.4	55.8	51.3	*74.7**	55.7	*66.6**	66.6
Downloading and installing software [l]	31.1	35.8	29.1	36.7	38.6	41.0	29.6	19.8	*47.2**	34.2	*38.6**	50.8

Source: *LearnInd CTS 2006;* ***Base:*** *a-h All teachers; i -l Teachers using computers in class* ***Question:*** *a-h Q14, i-l Q11.* ***Notes:*** *"xx.x*": based on at least 10 and less than 50 cases.*

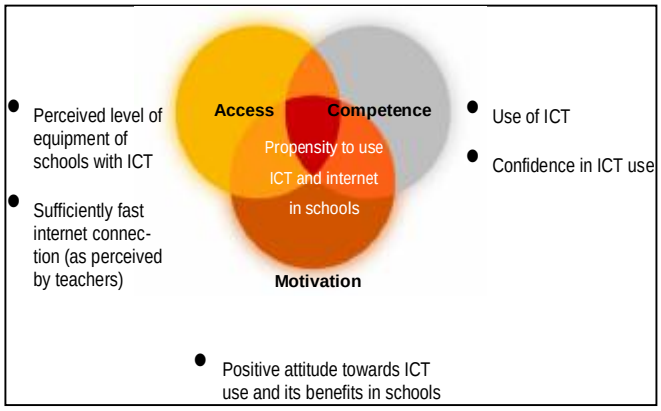
ICT Readiness of Teachers – the ACM Model

The ACM model as developed by Viherä and Nurmela (2001)[4] was applied in LearnInd to generate a typology according to the "propensity to the use of computers and internet by teachers in classroom situations at schools".

The typology in the figure below takes account of the three main categories of preconditions which need to be given for a school to make use of computers and the internet in the teaching process in classrooms, computer labs etc.

These are: access (to computers and the internet at school), competence (in using the computer software and the internet, and applying it for teaching purposes), and motivation (gauged through the attitude that using computers in classrooms results in significant learning benefits).

The Access-Competence-Motivation Model



Any attempt to group the classroom teachers according to their propensity to becoming users of computers and the internet in their teaching processes needs to take account of these three dimensions. In the present application of the ACM model data from the Classroom Teacher Survey (CTS) was used. Therefore "access" for instance is to be understood as a perceived level of computer equipment at schools and teachers' satisfaction therewith rather than an objective measure of equipment status.

38% of European teachers dispose of sufficient access to the internet at school, the necessary competence in using ICT in class and are motivated to its use. 19% of the teachers belong to this group and France only takes rank 25. This places the country almost at the very bottom of European countries. Overall the UK with 60% ranks top and Latvia with 15% finds itself at the very end.

The as yet insufficient internet connection in many schools, lack of ICT skills and a lack of motivation of teachers for using ICT are the most critical issues for a wider uptake of computers and the internet in schools in Europe. 20% of European teachers indicate insufficient computer equipment and the low speed of internet connection at their school as key barriers. 14% show a lack of motivation, i.e., they are of the opinion that using computers in class does not result in significant learning benefits.

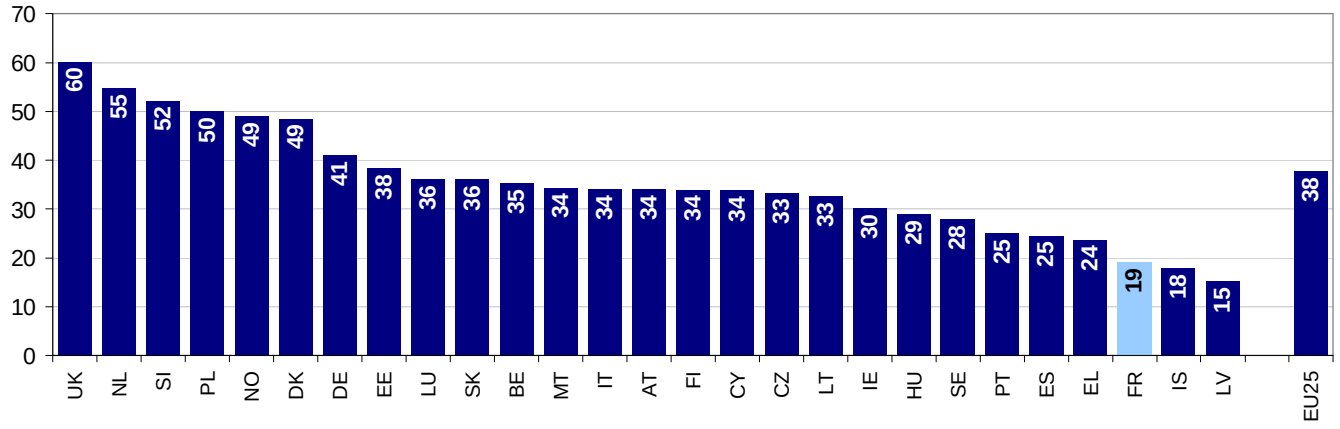
The situation in France is similar to the overall situation in the EU25 with figures very close to the European ones except for teachers ICT competence which seems to be significantly poorer than in many other countries.

Access, Motivation and Competence of Teachers for Using ICT in Schools in France 2006

FR	EU25	Access	Competence	Motivation
8.7	4.3	~~Access~~	~~Competence~~	~~Motivation~~
4.5	3.9	**Access**	~~Competence~~	~~Motivation~~
18.4	9.7	~~Access~~	**Competence**	~~Motivation~~
6.8	5.0	~~Access~~	~~Competence~~	**Motivation**
13.5	13.7	**Access**	**Competence**	~~Motivation~~
4.1	4.8	**Access**	~~Competence~~	**Motivation**
24.8	20.7	~~Access~~	**Competence**	**Motivation**
19.2	37.9	**Access**	**Competence**	**Motivation**
100.00	100			

Percentage of teachers. ***Source:*** *LeanInd CTS 2006;* ***Base:*** *All teachers;* ***Question:*** *See endnote* [5]

ICT Readiness of Teachers in France: Percentage of Teachers Fully Ready to use Computers in Class (ACM Indicator) 2006



Source: *LeanInd CTS 2006;* ***Base:*** *All teachers.* ***Question:*** *See endnote 5*

ANNEXES

Methodology Report

Universe / Sample population

In order to assure the comparability of school levels in all countries UIS-OECD-EUROSTAT "Mapping of national education programmes to ISCED 97 for school academic/year 2002/2003" [6] was used for composing the sample frame. Based on this, each country divided its school system into ICSED codes and made different combinations that existed in its country.

Sampling frame and method

The sample was composed using official databases, which contained contact data of schools. In the majority of countries the sample was drawn from a database received from the Ministry of Education.

For each country a separate template of sample frames was composed by TNS Emor. These templates contained data about school types across regions as well as location type. School types were defined based on the ISCED codes provided in UIS-OECD-EUROSTAT. Location type distribution was made according to the Eurostat type of locality classification which differentiates densely populated, intermediate and thinly populated municipalities[7]. Apart from that, each country was divided into 3-7 regions depending on the size of a country.

Based on the data provided by countries, TNS Emor composed quotas for each country. Two level stratification was used – quotas for first stage, random sample for second. The quotation for region by school type and location type was endorsed. Simple random selection was conducted by the local agency or the local source of the contact base. Both private and public schools were included in the sample. It was also obligatory to include schools of other teaching languages than the official language of a country in the sample.

Simple random sampling was used inside a quota cell. This means that if the quota for primary schools in region1 was 100 and the total number of primary school in this region was 800, then a random sample selection was be made among those 800 schools. This covered also both private and public schools and schools of other teaching languages than the official language of a country.

No more than 50% of interviews could be made in one school level. At least 10% of respondents had to be from schools, which provided professional/vocational or combined programme of vocational and upper secondary level education (in case a country did not have special quota for those schools). It did not matter whether vocational education level was coded as ISCED 3 or ISCED 4.

There were no duplications in samples of head teacher and classroom teacher surveys. This was only allowed in countries with small universe sizes (e.g. Malta, Cyprus, Iceland, Estonia, Latvia etc) and in cases where the last quota cells were very difficult to achieve or there were not enough schools of a certain type. The priority was to include as many different schools as possible. In both surveys, 5 attempts were made before giving up and only if the respondent refused was this person not contacted again.

The CATI programme generated a randomly chosen letter. The interviewer asked for the person with a surname that started on the generated letter. If there was more than one teacher whose surname started with the selected letter, the person who was first alphabetically was chosen. If the correct person was not available, an appointment was made. At least 5 attempts were made, before taking another teacher.

Only in Malta, due to instructions dictated by the Education Department would the Head Teacher randomly select a teacher who would be available for an appointment during which they would be interviewed.

Number of interviews conducted (HTS / CTS)

Country		Head Teachers	Classroom teachers
BE	Belgium	450	807
CZ	Czech Republic	500	1000
DK	Denmark	315	848
DE	Germany	450	901
EE	Estonia	400	851
EL	Greece	500	1000
ES	Spain	518	1022
FR	France	501	869
IE	Ireland	403	626
IT	Italy	500	900
CY	Cyprus	150	600
LV	Latvia	451	902
LT	Lithuania	457	908
LU	Luxemburg	82	277
HU	Hungary	500	1000
MT	Malta	100	200
NL	Netherlands	515	890
AT	Austria	320	450
PL	Poland	500	1000
PT	Portugal	450	900
SI	Slovenia	253	460
SK	Slovakia	502	1000
FI	Finland	318	601
SE	Sweden	200	450
UK	United Kingdom	450	905
IS	Iceland	177	424
NO	Norway	494	708
TOTAL		**10456**	**20499**

Fieldwork

Fieldwork was coordinated by the TNS Emor and conducted in cooperation with its local TNS offices excluding Iceland, Cyprus, Austria, Slovenia and Malta where TNS does not have offices. In these countries partners with whom TNS had previous experience were used.

Pilot interviews prior to the regular fieldwork were conducted with 20 schools in both target groups in Estonia and Greece in February 2006, in order to test the questionnaire (structure, comprehensibility of questions).

Between March and April 2006, surveys among head teachers (head teacher survey - HTS) and classroom teachers (CTS) were carried out in 27 countries of Europe. TNS Emor was responsible for the fieldwork.

Weighting schemes

After the fieldwork, weighting coefficients were computed using region, location type and school type.

Statistical accuracy of the survey: confidence intervals

Statistics vary in their accuracy, depending on the kind of data and sources. A "confidence interval" is a measure that helps to assess the accuracy that can be expected from data. The confidence interval is the estimated range of values on a certain level of probability of error. Confidence intervals for estimates of a population fraction (percentages) depend on the sample size, the probability of error, and the survey result (value of the percentage) itself. Further to this, variance of the weighting factors has negative effects on confidence intervals.

The calculation of confidence intervals is based on the assumption of (quasi-) infinite population universes. In practice, however, in some country and for some school levels the complete population of schools consists of only several hundred or even a few dozen of schools. In some cases, literally each and every school within a country-school type cell was contacted and asked to participate in the survey. This means that it is practically impossible to achieve a higher confidence interval through representative school surveys in which participation is not obligatory.

Country Background Data

In comparison to other Western European countries, a large proportion of the French population lives in rural areas. France has the highest fertility rate right after Ireland, and the pupil/teacher ratio in primary schools is exceedingly high. It has top expenditures on pre-primary education, but spends less money on tertiary education.

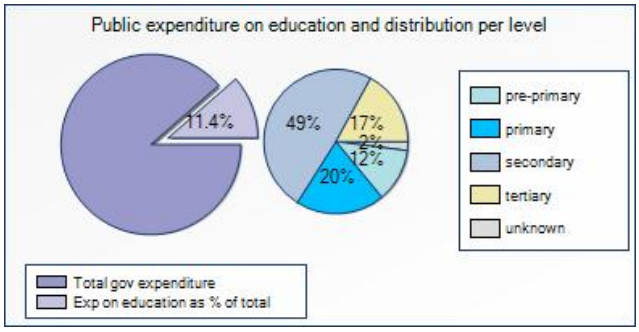
General Population Data for France 2002/03[8]

Total population (000)	59,850
Annual population growth rate (%)*	0.5
Population 0-14 years (%)	19
Rural population (%)*	24
Total fertility rate (births per woman) *	1.9
Infant mortality rate (0/00) *	4
Life expectancy at birth (years) *	79
GDP per capita (PPP) US$ *	27,123
GDP growth rate (%)*	1.2
* World Bank World Development Indicators	

Resources for Education in France 2002/03

Pupil / teacher ratio (primary)	19
Public expenditure on education :	
as % of GDP	5.6
as % of total government expenditure	11.4
Distribution of public expenditure per level (%):	
pre-primary	12
primary	20
secondary	49
tertiary	17
unknown	2

Resources for Education in France 2002/03



The Educational System in France[9]

In 2002/03, the school population in metropolitan France and its overseas *départements* (DOM) stood at 14,940 900 pupils and students – of a total population of a little over 60 million inhabitants – which was broken down as follows: 6,529,000 pupils in primary education ("pre-elementary" and "elementary" education), 5,596,000 in secondary education and 2,209,000 in higher education. The language of instruction is French. The regional languages are taught as part of the modern languages branch of studies.

In France, school education comes under the minister responsible for education throughout the country (the Minister for Youth, Education and Research). Free public-sector provision which caters for 86.5% of pupils in primary education and 79.9% of those in secondary education exists alongside education offered by private schools, the great majority of which have entered into a contract with the State enabling it to assume responsibility for teacher remuneration and also in most cases, as a result of so-called *contrats d'association* ("association contracts"), the functioning of the school concerned. Notwithstanding certain decentralisation measures under which responsibility for the construction and maintenance of public-sector school buildings has been entrusted to the local area authorities, the central government has retained a decisive role in the area of educational policy. The ministry responsible for education draws up in detail the curriculum for each subject and level of education, and provides guidelines for teaching without however obliging teachers to adopt a particular method. It administers the recruitment, training and management of teaching staff, determines the status and regulations of schools, allocating them their appropriate quota of staff. The ministry also organises examinations and awards national qualifications, in particular the baccalaureate which testifies to the satisfactory completion of secondary schooling. In order to implement this policy and the accomplishment of its numerous man-

agement tasks, the ministry has "external" administrative departments known as *académies*. France is thus divided into 30 such *académies* each headed by a rector acting directly on behalf of the minister. A single *académie* covers several *départements* – the *département* corresponds to the traditional administrative subdivision of France since the Revolution – each managed by an *inspecteur d'académie* who directs the national education services provided for it by the ministry.

Within the overall system established at national level, schools are to some extent independent as regards their administrative and teaching activity and, at secondary level (in *collèges* and *lycées*), their financial affairs too. In practice, this relative independence is expressed in a plan for each school, known as a *projet d'école* and *projet d'établissement* at primary and secondary levels respectively. The system is supervised by several inspectorates. Two general inspectorates are entrusted with very broad responsibilities for evaluation. Furthermore, "national education inspectors" visit primary schools and monitor the performance of their teachers; in secondary education, other inspectors, "regional teaching inspectors" are responsible for marking and assessing schoolteachers in their particular subject.

The use of ICT in Education[10]

The Guidance Law on the Future of Schooling set a new course for the Nation's educational policies for the years to come. Besides a common core of knowledge and skills in which students must be proficient upon completing their mandatory schooling, the law also institutes objectives that are directly tied to building Europe such as proficiency in information and communications technologies. The law proposes a "personalised educational success programme" (PPRE) to support struggling students.

The Government has committed to providing funding for this over a period of several years. Enforcement of the law will require some €2 billion on a full-year basis. In secondary school teaching, the reform's provisions lean toward greater consideration for information and communications technologies in the curricula, tests and instructor training. Another step was made in this direction in France under the new Guidance and Planning law, where "proficiency in common information and communications technologies" is considered part of the basic core skills to be mastered; certification in NICT skills will be required to earn a lower secondary school certificate and Baccalaureate for students in Level 2 and 3 (B2I®) IT and Internet certificate programmes. In higher learning, the IT and Internet Certificate (C2I®) will be mandatory by 2007 for completing first-tier coursework and will give rise to ECTS credits.

"Vocational" programmes at the Master's level are being developed for professions in the fields of law and healthcare and are already being experimented with in the field of teaching. Two main trends can be seen: the creation of hubs structured around a basin, with the regional digital universities (UNR) and the development of theme-based digital universities (UNT), by area of specialisation. The theme-based universities in medical sciences, engineering sciences and legal professions are already up and running, while others are being developed. This is a major change in direction French educational system at its various levels, whether in lower secondary schools to foster the most widespread success possible, or in upper secondary schools, where the aim is to take into account the diversity in types of profiles and outcomes.

The Study

There is a lack of information on the actual use of ICT for learning in schools, and for supporting political action in potential future programmes. It is necessary to clarify matters such as the educational vision of heads of schools, the current impact of ICTs on teachers' practice, support and training and on other factors for success in e-learning.

The objective of the study is to obtain estimates for the eEurope 2005 indicator on e-learning "number of pupils per computer with Internet connection (broadband/non-broadband)" and relate it to other possible indicators of educational use of ICT in compulsory education (e-learning in schools). The study looks at how Information and Communication Technologies (ICT) are used in schools.

The study is a continuation of the earlier benchmarking exercise for eEurope 2002.

It involved two surveys. Firstly of head teachers to obtain information on the schools and then of teachers to focus on their use of ICTs in the teaching process

This exercise is part of the Information Society monitoring and benchmarking process for which the Commission in cooperation with the Council defined benchmarking indicators.

Country Briefs

This document has been prepared by **empirica** based on own desk research and the above mentioned primary data sources: Head Teacher Survey (HTS) 2006 and Classroom Teacher Survey (CTS) 2006 in the EU25 member states, Iceland and Norway.

Altogether 27 LearnInd Country Briefs are available in a common format, one for each member of the enlarged European Union, Norway and Iceland.

A final report has also been developed. It includes approximately 100 exhibits, more than 250 data tables and a report about the key results.

You can access and download these documents in PDF format (for free) from http://ec.europa.eu/information_society/eeurope/i2010/benchmarking/index_en.htm.

More information

Check our results and achievements on: http://ec.europa.eu/information_society/eeurope/i2010/benchmarking/index_en.htm. If you wish to be provided with more details, or to receive news and updates, please contact us at: **learnind@empirica.com** or get in touch with us.

empirica Gesellschaft für Kommunikations- und Technologieforschung mbH

(Project Co-ordinator)

Oxfordstr. 2, 53111 Bonn, Germany,
Tel.: +49 228 985 30 0,
www.empirica.com

TNS Emor

Ahtri 12, 10151 Tallinn, Estonia, Tel.: +372 6268 519, Fax: + 372 6268 501

[1] Note that "in class" means during lessons while teaching and does not denote a particular location such as a classroom.

[2] Base (100%) = all teachers who have used a computer in class in the last 12 months.

[3] This section includes some comparisons of the Eurobarometer Flash 94/1001 and 95/102 results from 2001 with those from the LearnInd surveys from 2006. Please bear in mind that the figures are not directly comparable due to the use of slightly different approaches and methodologies.

[4] Viherä, M-L, Nurmela, J (2001) "Communication Capability Is an Intrinsic Determinant for Information Age", in Futures, Volume 33, Issue 3-4:245-265.

[5] Synthetic indicators: Access: Q14 (2) "Our school is well equipped with computers" and Q14 (3) "The internet connection we have is sufficiently fast ".

Competence: Q11 How confident do you feel... a) using a text processor, b) creating a presentation c) using e-mail, d) downloading and installing software. Threshold: Average of 2.5 or more on a 1-4 confidence scale

Motivation: Q14 (8); disagree to "Using computers in class does not result in significant learning benefits".

For full question wordings refer to questionnaire.

[6] http://forum.europa.eu.int/Public/irc/dsis/edtcs/library?l=/public/unesco_collection/programmes_isced97&vm=detailed&sb=Title

[7] Densely populated area refers to a set of closely related local units, each one of which having a density greater than 500 inhabitants per km2, and the total population of which being of at least 50 000 inhabitants; Intermediate area refers to a set of closely related local units that do not pertain to a densely populated area, each one of which having density greater than 100 inhabitants per km2, and where the total population is at least of 50 000 inhabitants or it refers to a set that is adjacent to a highly populated area. Thinly populated area (rural): refers to a set of closely related local units that are not part of a densely populated area, or of an intermediate area. (A set of local areas totalling less than 100 km², not reaching the required density, but entirely enclosed within a densely-populated or intermediate area, is to be considered to form part of that area. If it is enclosed within a densely-populated area and an intermediate area it is considered to form part of the intermediate area).

[8] Source: http://www.uis.unesco.org/profiles/selectCountry_en.aspx (visited 28 March 2006)

[9] Source: http://www.eurydice.org/Documents/struct2/frameset_EN.html (visited: 28 March 2006)

[10] Source: http://europa.eu.int/comm/education/policies/2010/nationalreport_en.html (visited: 9 May 2006)